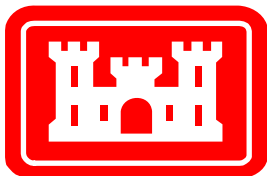


Surf City and North Topsail Beach,
North Carolina

Integrated Feasibility Report and Environmental Impact Statement for Surf City and North Topsail Beach, North Carolina

PEER REVIEW PLAN

5 December 2007



**US Army Corps
of Engineers**

Wilmington District

ACRONYMS & ABBREVIATIONS

AFB – Alternative Formulation Briefing

CESAW – US Army Corps of Engineers, South Atlantic, Wilmington

CWRB – Civil Works Review Board

EIS – Environmental Impact Statement

EPR – External Peer Review

FCSA – Feasibility Cost Sharing Agreement

FEIS – Final Environmental Impact Statement

FSM – Feasibility Scoping Meeting

GI – General Investigations

HQ – Headquarters

ITR – Independent Technical Review

LOI – Letter of Intent

NEPA – National Environmental Policy Act

OVEST -- Office of the Chief of Engineers Value Engineering Study Team

PCX-CSDR - National Planning Center of Expertise for Coastal Storm Damage
Reduction

PDT – Project Delivery Team

PMP – Project Management Plan

PRP - Peer Review Plan

P&S – Plans & Specifications

SAD – South Atlantic Division

Walla Walla DX - Walla Walla District Directorate of Expertise for Civil Works
Cost Engineering

1. Introduction

This Peer Review Plan (PRP) is a collaborative product of the project delivery team (PDT), the National Planning Center of Expertise for Coastal Storm Damage Reduction (PCX-CSDR) and the Walla Walla District Directorate of Expertise for Civil Works Cost Engineering (Walla Walla DX). The PCX-CSDR shall manage the PRP. Each of the following paragraphs (a. through j.) correspond to the guidance provided in paragraphs 6.a. through j. of Engineering Circular 1105-2-408, Planning - Peer Review of Decision Documents, 31 MAY 2005.

2. The Peer Review Plan

a. Title, Subject, and Purpose of the Decision Document. The *Integrated Feasibility Report and Environmental Impact Statement for Surf City and North Topsail Beach, NC* shall be the decision document. The Surf City and North Topsail Beach Study is being pursued under the Corps of Engineers' General Investigation (GI) Program. The integrated Feasibility Report and Environmental Impact Statement (EIS) are being conducted in response to the following two resolutions adopted February 16, 2000, and April 11, 2000 respectively:

- Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That the Secretary of the Army is requested to review the report of the Chief of Engineers on West Onslow Beach and New River Inlet, North Carolina, published as House Document 393, 102nd Congress, 2nd Session, dated September 23, 1992, and other pertinent reports, to determine whether any modifications of the recommendations contained therein are advisable at the present time in the interest of shore protection and related purposes for Surf City, North Carolina.
- Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That the Secretary of the Army is requested to review the report of the Chief of Engineers on West Onslow Beach and New River Inlet, North Carolina, published as House Document 393, 102nd Congress, 2nd Session, dated September 23, 1992, and other pertinent reports, to determine whether any modifications of the recommendations contained therein are advisable at the present time in the interest of shore protection and related purposes for North Topsail Beach, North Carolina.

The principal study area is the two towns, Surf City and North Topsail Beach located on Topsail Island. Topsail Island is a 22-mile long and 0.5-mile wide barrier island located approximately 40 miles northeast of Wilmington, North Carolina. Due to the northeast-southwest orientation of the coastline, the island faces the Atlantic Ocean on the southeast. Other waterbodies in the vicinity include New River Inlet immediately to the northeast, Banks Channel and the Atlantic Intracoastal Waterway (AIWW) to the northwest, and New Topsail Inlet at the far southwestern end of the island. The sponsors' interest is in developing a plan of protection against storm damages for 17 miles of shoreline extending from the Topsail Beach/Surf City town limits to the northern end of Topsail Island. From the shoreline the study area extends landward approximately 500 feet. Seaward the study area extends from the shoreline approximately 1 mile. The study area also includes offshore borrow areas lying 1 to 8

miles from the shoreline and borrow areas in Banks Channel, New Topsail Inlet and New River Inlet.

The Surf City and North Topsail Beach feasibility study is investigating measures and plans for hurricane and storm damage reduction. The study is also documenting incidental recreation benefits. Being located between Cape Lookout and Cape Fear, Topsail Island is a frequent target for hurricanes and tropical storms tracking along the mid-Atlantic coast. In addition to these direct landfalling storms, many storms that have passed offshore without making landfall have also impacted the study area. Local impacts to the study area varied depending on the landfall location and strength of the storm. However, Bertha and Fran in 1996 and Floyd in 1999 were among the most damaging and costly storms ever to hit North Carolina.

Typical solutions considered for this study area are berm and dune beachfills using material dredged from offshore borrow sites, and in some cases building relocations, or coastal structures such as groins or breakwaters.

The estimated range of initial construction cost for the various alternatives varies between \$60 million and \$100 million, and estimated annual renourishment costs are approximately \$3 million. Renourishment would continue through 50 years if the project is authorized.

Key PDT members are shown in the table below.

ROLE	NAME	ORGANIZATION
Project Manager	Tom Blount	CESAW-PM-C
Program Manager	Tony Carter	CESAW-PM-P
Lead Planner	Doug Greene	CESAW-TS-PF
Biologist	Jenny Owens	CESAW-TS-PE
Biologist	Doug Piatkowski	CESAW-TS-PE
Cultural Resources	Richard Kimmel	CESAW-TS-PE
Coastal/H&H	Tony Young	CESAW-TS-EC
Geotechnical	Ray Livermore	CESAW-TS-EG
Cost Engineering	John Caldwell	CESAW-TS-EE
Economics	Frank Snipes	CESAW-TS-PF
Economics	George Ebai	CESAW-TS-PF
Real Estate	Belinda Estabrook	CESAS-RE-RP

The PDT also includes the non-Federal Sponsor, stakeholders, and resource agencies.

For more information regarding the PRP, the project manager for the feasibility study may be contacted as follows:

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Independent Technical Review Team Leaders

ITR will be lead by PCX-CSDR, with participation by Walla Walla DX.

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<https://rbc.nado.ds.usace.army.mil/Hurricane%20and%20Storm%20Damage/HSDP-PCX%20Web%20Page.htm>

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b. External Peer Review. EC 1105-2-408 provides the process for deciding whether or not to employ external peer review. The following is an excerpt of EC section 9.a:

Decision documents covered by this Circular will undergo EPR if there is a vertical team consensus (involving district, major subordinate command and Headquarters members) that the covered subject matter (including data, use of models, assumptions, and other scientific and engineering information) is novel, is controversial, is precedent setting, has significant interagency interest, or has significant economic, environmental and social effects to the nation. Decision documents covered by this Circular that do not meet the standard shall undergo ITR as described in paragraph 8, above.

Please see the External Peer Review Decision Checklist below (1 - 5).

1. Novel subject matter? No, this is a typical storm damage reduction project.

2. Controversial subject matter? No, this is a typical storm damage reduction project with no controversial subject matter anticipated.
3. Precedent setting? No, this is a typical storm damage reduction project similar to several preceding projects.
4. Unusually significant interagency interest? No, this is a typical storm damage reduction project and normal coordination with other agencies is anticipated.
5. Unusually significant economic, environmental, and social effects to the nation? The anticipated costs and effects are not unusual, however, estimated construction costs exceed \$40 million, which is the threshold amount suggested for recommendation of an EPR.

Decision: New methodologies are not anticipated for the analysis or preparation of the Integrated Feasibility Report and EIS. Similarly, neither data being collected, nor any associated analysis would be considered scientifically influential. However, due to the estimated initial project cost projected to exceed \$40 million, CESAW recommends that EPR should be conducted for the Draft Feasibility Report and EIS to meet the requirements of EC 1105-2-408.

Based upon recent HQUSACE discussions, if one discipline of a report triggers EPR, then the entire report must undergo EPR. Therefore, based upon CESAW's initial assessment, PCX-CSDR recommends EPR for the entire draft feasibility report.

c. Anticipated Peer Review Schedule.

REVIEW PHASE	COMPLETION DATE	
Independent Technical Review AFB Materials	August	2006
Alternative Formulation Briefing (AFB)	December	2006
ITR and EPR, for Draft Feasibility Report & EIS	March	2008
Draft Feasibility Report & EIS / NEPA Public Review	Summer	2008
Civil Works Review Board	Spring	2009
Final EIS / NEPA Public Review (MSC Commanders Public Notice)	Summer	2009

d. External Peer Review and Procedure. For this feasibility study, PCX-CSDR will make a recommendation whether or not External Peer Review is to be conducted, and if an EPR is conducted, the procedure to be followed.

e. Public Comment on Decision Document. As each is completed, the Draft and the Final Integrated Feasibility Report and EIS will be disseminated to resource agencies, interest groups, and the public as part of the National Environmental Policy Act (NEPA) environmental compliance review, shown in the Anticipated Peer Review Schedule. Public entities and private individuals may also review and comment on draft documents

as members of the PDT. Resources agencies were sent copies of the AFB Pre-conference Materials along with an invitation to attend the AFB held in December 2006.

f. Provision of Public Comments to Reviewers. All significant and relevant public comments will be provided as part of the review package to Peer Reviewers as they are available and may include but not be limited to: scoping letters, meeting minutes, other received letters, and emails.

g. Anticipated Number of Reviewers. The final determination of the number of reviewers required will be made by PCX-CSDR. The number of reviewers may vary as required. (See Attachment 2.)

h. Primary Review Disciplines and Expertise. The PCX-CSDR will make the final determination for the discipline type and number needed of reviewers. The minimal number of different disciplines expected is nine, as shown in the table below. As the Surf City and North Topsail Beach Feasibility Study proceeds, additional reviewing disciplines may be added.

PRELIMINARY REVIEW DISCIPLINES FOR ITR/EPR
Planning
Environmental / NEPA Compliance
Cultural Resources
Economics
Recreation
Coastal Engineering / Hydrology & Hydraulics
Geotechnical Engineering
Cost Estimating
Real Estate

i. Selection of External Peer Reviewers. The PCX-CSDR and associated Vertical Team shall make the final determination for the discipline type and number needed of reviewers as well as which if any External Peer Reviewers are needed. For this feasibility study, this decision is the responsibility of the PCX-CSDR.

j. Public Review. The public will have opportunities to review the Integrated Feasibility Report/EIS as required by the NEPA compliance process. The public will also have access to the PCX-CSDR documentation on the ITR and EPR.

k. Miscellaneous Items.

(1) **DrChecks.** A complete record of all comments and responses will be maintained throughout the study. A software program useful to coordinate various document comments and responses electronically, DrChecks, was used to conduct the ITR of the AFB Pre-conference Materials. For the AFB ITR backchecks were made via compilation of comments received in DrChecks and responses and actions taken were

documented in an Excel worksheet. DrChecks will be used entirely for the ITR of the Draft Feasibility Report and EIS. DrChecks is not required for EPR or Public Review.

(2) **Model Certification.** All models developed or modified during for use in this study will be subjected to ITR and will be certified as required by Engineer Circular (EC) 1105-2-407, U.S. Army Corps of Engineers. *Planning Models Improvement Program: Model Certification.* Wilmington District is currently coordinating GRANDUC with the PCX-CSDR.

ATTACHMENT 1

PEER REVIEW PLAN

PEER REVIEW PLAN	
FEASIBILITY PHASE	
Study Product or Milestone	Review by
Feasibility Scoping Meeting	(not part of this study)
Value Engineering Package	OVEST PDT
Alternative Formulation Briefing	PDT, Supervisors, ITR Team
Draft Feasibility Report & EIS	PDT, Supervisors, ITR Team, EPR Team, OC, Public, State and Federal Agencies
Risk Analysis Cost Engineering Policy	Walla Walla DX Walla Walla DX HQ, SAD
CWRB Review Package	PDT, Supervisors
Final Feasibility Report & EIS	CWRB
Final Feasibility Report & EIS	Agencies, Public & Private Entities
Chief of Engineers Report	HQ→ ASA(CW)→ OMB→ Congress

Reference External Peer Review Decision Checklist in Paragraph 2.b., questions 1 - 5: if any changes occur in checklisted items, the vertical team will determine if External Peer Review (EPR) will be required. A decision regarding EPR is requested in writing from SAD and HQ Regional Integration Team Leader (RIT).

A Scoping Letter during the Reconnaissance Phase provided the Public the opportunity to share any known concerns.

ATTACHMENT 2

ITR APPROVAL REQUEST

Establishment of ITR responsibility has been an evolving process. Skilled and experienced personnel who have not been associated with the development of the Surf City and North Topsail Beach, North Carolina products have been previously requested by Wilmington District Plan Formulation and Economics to serve as ITR members. PCX-CSDR led the ITR for the Surf City and North Topsail Beach Feasibility Study AFB Pre-Conference Materials Package. Tulsa and Baltimore Districts provided ITR members for the Recreation and Real Estate components of the ITR. EPR members will be determined by the PCX-CSDR

Key ITR members are shown in the table below (to be determined by PCX-CSDR)

ROLE	NAME	ORGANIZATION
Planning / Plan Formulation	To be determined	CE-
Environmental	To be determined	CE-
Cultural Resources	To be determined	CE-
Coastal/H&H	To be determined	CE-
Geotechnical	To be determined	CE-
Cost Engineering	To be determined	CE-
Economics	To be determined	CE-
Recreation	To be determined	CESWT
Real Estate	To be determined	CENAB-

It is requested that these ITR Team Members be evaluated and approved to perform the upcoming ITR for the Draft Feasibility Report/EIS.

Below are the biographies for the anticipated ITR Team Members:

Plan Formulation / Planning

Name: To be determined

Grade and position title: GS-XX, XXIST

Organization: XX District, XX Division (CEXXX)

Education: XX

Years of experience: XX

Major achievements and projects: XX

Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Environmental

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)
Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Economics

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)
Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Cost Estimating

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)
Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Coastal Engineering / Hydrology & Hydraulics

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)

Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Geotechnical Engineering

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)
Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Real Estate

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)
Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Recreation

Name: To be determined
Grade and position title: GS-XX, XXIST
Organization: XX District, XX Division (CEXXX)
Education: XX
Years of experience: XX
Major achievements and projects: XX
Other awards and relevant accomplishments: XX
Professional Memberships: XX
Training: XX

Cultural Resources

Name: To be determined

Grade and position title: GS-XX, XXIST

Organization: XX District, XX Division (CEXXX)

Education: XX

Years of experience: XX

Major achievements and projects: XX

Other awards and relevant accomplishments: XX

Professional Memberships: XX

Training: XX